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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,103	07/07/2003	Hua Autumn Liu	29250-001018/US	4245
32498 7590 01/25/2008 CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC P.O. BOX 1995 VIENNA, VA 22183			EXAMINER RUSSELL, WANDA Z	
			ART UNIT 2616	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/613,103

Applicant(s)

LIU, HUA AUTUMN

Examiner

Wanda Z. Russell

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Specification*

1. In P. 1, [0004], line 4, the application number 10163104 needs to be filled to replace the blank.

### *Claim Rejections - 35 USC § 103*

2. **Claims 1-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Carpini et al. (Pub No. US 2003/0063613), in view of Enoki et al. (US patent 6,895,008 B2).

Regarding **claim 1**, Carpini et al. substantially disclose a system (Title) for re-routing traffic ([0039], line 8) comprising:

an originating network device (Fig. 1) operable to:

re-route traffic ([0039], line 8) traveling in a forward direction to an alternate path (21-Fig. 1, and [0039], lines 1-3) in the forward direction; and

transmit a switch over message (divert, [0051], line 3 & lines 1-3; and re-routing, [0014], line 6) along the alternate path (implementation of a secondary path, [0051], line 2; and along a second communication path, [0014], line 8) in the forward direction (7-23-29-Fig. 3) to a merging network device (29-Fig. 3) responsible for re-routing traffic (divert data, [0051], line 3) traveling in a backward direction to the alternate path (return data traffic, [0051], line 9) in the backward direction (29-23-7 -Fig. 3; and [0051]).

However, Carpini et al. fail to specifically teach the path is a bi-directional LSP.

Enoki et al. teach the bi-directional LSP (Fig. 16, and col. 12, lines 15-18).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Carpini et al. with Enoki et al. to obtain the invention as specified, for re-routing traffic in any direction to the alternate path along either uni-directional or bi-directional LSP.

Regarding **claim 2**, Carpini et al. and Enoki et al. teach everything claimed as applied above (see claim 1). In addition, Carpini et al. disclose the system of claim 1, wherein the originating network device is further operable to transmit a second message, along the alternate path in the forward direction, to the merging network device to allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected (3, 21-Fig. 1, bi-directional, and "restoration", [0047], lines 1-5).

However, Carpini et al. fail to specifically teach the path is a bi-directional LSP.

Enoki et al. teach the bi-directional LSP (Fig. 16, and col. 12, lines 15-18).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Carpini et al. with Enoki et al. to obtain the invention as specified, for re-routing traffic in any direction to the alternate path along either uni-directional or bi-directional LSP.

Regarding **claim 3**, Carpini et al. and Enoki et al. teach everything claimed as applied above (see claim 1). In addition, Carpini et al. disclose the system of claim 1, wherein the originating network device is a multi-protocol label switched (MPLS) device ([0034], line 4).

Art Unit: 2616

Regarding **claim 4**, Carpini et al. and Enoki et al. teach everything claimed as applied above (see claim 1).

However, Carpini et al. fail to specifically teach that the bi-directional LSP is comprised of an LSP carrying traffic in the forward direction and another LSP carrying traffic in the backward direction.

Enoki et al. teach that the bi-directional LSP is comprised of an LSP carrying traffic in the forward direction (up direction LSP, col. 4, line 66) and another LSP carrying traffic in the backward direction (down direction LSP, col. 5, line 6. Also col. 4, line 66-col. 5, line 7).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Carpini et al. with Enoki et al. to obtain the invention as specified, for re-routing traffic in any direction to the alternate path along either uni-directional or bi-directional LSP.

Regarding **claim 5**, Carpini et al. and Enoki et al. teach everything claimed as applied above (see claim 1). In addition, Carpini et al. disclose the system of claim 1 further comprising a merging network device (29-Fig. 3) operable to receive the switch over message (divert, [0051], line 3; and re-routing, [0014], line 6) and to re-route traffic (divert data, [0051], line 3) traveling along the bi-directional LSP in the backwards direction to the alternate path (return data traffic, [0051], line 9) in the backwards direction (29-23-7 –Fig. 3; and [0051]) based on the switch over message ([0050], last 4 lines, and [0051]).

However, Carpini et al. fail to specifically teach the path is a bi-directional LSP.

Enoki et al. teach the bi-directional LSP (Fig. 16, and col. 12, lines 15-18).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Carpini et al. with Enoki et al. to obtain the invention as specified, for re-routing traffic in any direction to the alternate path along either uni-directional or bi-directional LSP.

Regarding **claim 6**, Carpini et al. and Enoki et al. teach everything claimed as applied above (see claim 1 and 5). In addition, Carpini et al. disclose the system of claim 5, wherein, the merging network device is further operable to:

receive a second message ("restoration", [0047], lines 1-5) along the alternate path in the forward direction; and

allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message (21-Fig. 1, bi-directional).

Regarding **claim 7**, Carpini et al. and Enoki et al. teach everything claimed as applied above (see claim 1 and 5). In addition, Carpini et al. disclose the system of claim 5 wherein the merging network device is a MPLS device ([0034, line 4).

Regarding **claim 8**, Carpini et al. substantially disclose a merging network device (29-Fig. 3) operable to:

receive a switch over message (divert, [0051], line 3); and

re-routing traffic (divert data, [0051], line 3) traveling in a backward direction to the alternate path (return data traffic, [0051], line 9) in the backward direction (29-23-7 – Fig. 3, and [0051]) based on the switch over message.

However, Carpini et al. fail to specifically teach the path is a bi-directional LSP.

Art Unit: 2616

Enoki et al. teach the bi-directional LSP (Fig. 16, and col. 12, lines 15-18).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Carpini et al. with Enoki et al. to obtain the invention as specified, for re-routing traffic in any direction to the alternate path along either uni-directional or bi-directional LSP.

Regarding **claim 9**, Carpini et al. and Enoki et al. teach everything claimed as applied above (see claim 8). In addition, Carpini et al. disclose the device as in claim 8 further operable to:

receive a second message ("restoration", [0047], lines 1-5) along the alternate path in the forward direction; and

allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message (3, 21-Fig. 1, bi-directional, and "restoration", [0047], lines 1-5).

Regarding **claim 10**, Carpini et al. and Enoki et al. teach everything claimed as applied above (see claim 8). In addition, Carpini et al. disclose the device of claim 8 wherein, the merging network device is a MPLS device ([0034], line 4).

Regarding **claim 11-15**, they are method claims of claims 1, 2, 4, 8, and 9 respectively. Therefore they are rejected for the same reason above.

Regarding **claim 16-17**, they are method claims of claims 8, and 9 respectively. Therefore they are rejected for the same reason above.

Regarding **claims 18-25**, they are means for claims of claims 1, 2, 4, 5, 6, 8, 9, and 1 respectively. Therefore they are rejected for the same reason above.

***Response to Arguments***

3. Applicant's arguments, filed November 18, 2007, have been considered but are not persuasive.

4. Applicant's argues that neither Carpini et al. nor Enoki et al. teach the switch-over message.

In response, the Examiner further interprets "divert" on line 3 of paragraphs [0051] and re-routing on line 6 of [0014] of Carpini et al. as "switch over".

5. Applicant's argues that Carpini et al. do not teach that a switch-over message is transmitted by an originating network device along an alternate path in a forward direction to a merging network device responsible for re-routing traffic traveling in a backward direction.

In response, the Examiner respectfully disagrees.

Comparing Carpini's Fig. 1 and 3 with applicant's Fig. 1, they are identical. From Figs. 1 & 3, and paragraphs of [0050] and [0051], Carpini et al. teach transmit a switch over message (divert, [0051], line 3; and re-routing, [0014], line 6) along the alternate path (implementation of a secondary path, [0051], line 2; and along a second communication path, [0014], line 8) in the forward direction (7-23-29-Fig. 3) to a merging network device (29-Fig. 3) responsible for re-routing traffic (divert data, [0051], line 3) traveling in a backward direction to the alternate path (return data traffic, [0051], line 9) in the backward direction (29-23-7 -Fig. 3; and [0051]).

***Conclusion***



6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda Z. Russell whose telephone number is (571) 270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2616

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZR

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